

REMARKS

Reconsideration is requested.

Claims 15, 16, 18 and 28 are pending.

The Section 103 rejection of claims 15, 16, 18 and 28 over Nitsas (U.S. Patent No. 6, 106,838) and Ropapharm (WO96/37210) is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following distinguishing comments.

The present invention relates to the finding that a composition containing a combination of both carvacrol and thymol has a pronounced and unexpected effect on *Treponema* and thereby also a valuable effect on diseases caused by *Treponema*. From the working example 1 it is evident that the effect is synergistic.

Nitsas is understood to teach that a composition comprising an essential oil obtained from *Origanum*, especially *Origanum vulgare* ssp *hirtum*, and containing thymol and carvacrol as its main ingredients, wherein the weight ration of carvacrol to thymol is at least 10:1 preferably from 30:1 to 150:1 can be used for the treatment of diseases caused by *Staphylococcus*, *Streptococcus*, *Salmonella* and *Escherichia coli*. See column 4, lines 49-50; and column 5, lines 22-25. Nitsas does not teach or suggest the presently claimed invention or the surprisingly good effect the claimed invention has towards *Treponema* and diseases caused by the presence of *Treponema*.

The deficiencies of Nitsas are not cured by the secondary reference (WO 96/37210) and there was no motivation in the art to combine the references in an attempt to make the presently claimed invention.

WO 96/37210 (Ropapharm) is understood to teach antimicrobial compositions comprising an extraction of essential oils that were effective to treat diseases caused by pathogenic microorganisms of the abdominal tract and further causes of diarrhea.

The presently claimed invention however would not have been obvious from the combination of cited art and consideration of the following in this regard is requested.

Ropapharm disclose the use of essential oil extracts in a general manner without giving specific examples in regard to active compounds.

Moreover, there is only one example in the reference, in which the combination of thymol and carvacrol is specifically mentioned. On page 7, lines 33-37 there is an extract of *Origanum vulgare* disclosed, which comprises the compounds thymol and carvacrol in the following amounts: 86-88% carvacrol and 3-5% thymol. The ranges calculated from these amounts are different from the range as claimed in the present invention.

Further, the specific examples given in Ropapharm are combinations of different oil extracts. The extract of *Origanum vulgare*, which comprises, among other active ingredients, thymol and carvacrol is never used alone, it is specifically used in combinations with other extracts and/or active substances.

Ropapharm discloses many different extracts without further specification of active compounds and many microbial infections which could be treated with the extracts. Ropapharm does not provide any suggestion as to which extract and especially which active compounds have a specific effect in the treatment of diseases caused by *Treponema* and/or for treating swine diseases.

Because of a lack of sufficient disclosure, the cited prior art documents, either alone nor in combination, fail to suggest the use of a specific combination (specific range) of thymol and carvacrol for the treatment of diseases caused by Treponema and/or for treating swine diseases, as presently claimed.

It is illustrated in the present application that the claimed composition containing carvacrol to thymol in a weight ratio of from 1:5 to 10.1 preferably in a weight ratio 2:3 to 4:1 has strong synergistic effect. Therefore the applicants believe they have demonstrated unexpected results of the ranges as claimed in the present application, which is strong evidence in support of the patentability of the presently claimed invention.

Withdrawal of the Section 103 rejection is requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned in the event anything further is required in this regard.

Respectfully submitted,

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